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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,825	05/15/2001	Amita Chandra	WEICKM10	9533
23599	7590	10/21/2004	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			OLSEN, KAJ K	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/831,825

Applicant(s)

CHANDRA ET AL.

Examiner

Kaj K Olsen

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 October 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): the 112 rejection.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-11,17-21,23-25

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10-12-2004 have been fully considered but they are not persuasive. Applicant urges that it is not clear that the Leonard materials could be filled with a liquid. In particular, applicant urges that Leonard is drawn to a structure of fiber "prills" and it is unclear that such a structure would be capable of being filled with an electrolyte. This is not persuasive for a number of reasons. First, applicant has never addressed the evidence the examiner gave for the material being inherently porous. Namely, if the material of Leonard is not porous, how could they leach out the soluble salt? See paragraph 21 of the final rejection. The very fact that Leonard teaches leaching away a particular material strongly indicates the material has some degree of porosity. In fact, the pictorial representation of fig. 3 shows a material that would read on the claimed pores (i.e. the spaces between the various prills). In addition, applicant also does not address the issue of how a material that is constructed out of the same claimed materials of the instant invention under largely analogous conditions is somehow not porous where the instant invention is. These facts individually establish a *prima facie* case for the porosity of Leonard material being inherent. Applicant's arguments appears to be that they're unclear if the prill structure would be capable of being filled with liquid. This does not rebut the *prima facie* case of evidence for the porosity. Finally see col. 1, lines 15-20 and Table I of Leonard. This clearly teaches the porosity of Leonard.

2. With respect to the use of Oehme, applicant urges that because the chapter is drawn solely to liquid electrolyte sensors, other chapters are presumably drawn to electrodes not utilized in liquid electrolytes. First, applicant has no evidence of what the other chapters are and

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whether any of those other chapters would address solid-state Ag/AgCl reference electrodes.

Second, just because Leonard may be useable with a solid electrolyte, how does this invalidate the use of Oehme? Just because there might be other means of constructing reference electrodes doesn't invalidate that the use of liquid electrolytes as an electrolyte medium. The examiner is aware that solid electrolyte based reference electrodes are known in the art, but the use of liquid based sensors is far more common. Oehme even suggests this on p. 252 that the "most frequently used reference electrodes are listed in Table 7-5". Table 7-5 is all drawn to sensors having liquid electrolytes.

3. Applicant's other argument concerning Oehme is there is no indication that liquid electrolyte itself could fill the pores of Leonard. This is unpersuasive because the material leached out of the pores of Leonard (i.e. KCl) is the same materials that Oehme suggests utilizing for an electrolyte in Table 7-5.
4. Applicant further urges that Leonard is drawn to an electrode that does not require liquid electrolyte filling the pores for operation. That may be the case (although the examiner does not understand how the applicant came to that conclusion), how does that invalidate the combination of Leonard and Oehme? Oehme provides a *prima facie* motivation for filling the pores of Leonard with an electrolyte (see previous office action). What about the teachings of Oehme read away from the set forth combination of these teachings (other than the applicants arguments already discussed above).
5. With respect to Shen, applicant again addresses the issue of water vapor over liquid water. However, it appears the applicant has missed the examiner's point. In particular, the examiner reminds the applicant that the step of adding electrolyte to the pores is part of the

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process limitations. Hence, it is not necessary for the Shen to teach the use of liquid water as the hydration means as long as Shen is hydrated with electrolyte in some manner (i.e. hydration by water vapor would result in a membrane that has water within its pores). Applicant urges the obvious fact that water vapor is not liquid. That would appear to be irrelevant to the issue here. The issue is not how the water was delivered, but what is the end result of that water delivery means. A hydrated membrane is a membrane that is at least partially saturated with water. The water in the membrane does not remain in vaporous form when it was delivered by vapor. Rather it has condensed onto the membrane resulting in its hydration. By analogy, the examiner will utilize an example of the hydration of a hygroscopic material like silica gel. Silica gel could be hydrated by pouring water over it or it could be hydrated by exposure to humid air. The end result of either process for equivalent amounts of water is the same thing, namely hydrated silica gel. Because the claims rejected utilizing Shen are drawn to a product, how that product achieved its hydration is irrelevant (see MPEP 2113).

6. Applicant also urges that Shen is drawn to a completely separate material from the electrolyte of the instant invention. The examiner would agree. However, applicant has claimed a product of a process that specifies very little structural detail about the product. Because product claims should be based on what the product is and not on how the product was arrived at (MPEP 2113), applicant's product claims are extremely broad. The only structural details resulting from the process of claim 1 are a porous material containing liquid electrolyte. Shen has that and thereby reads on the product claims. If applicant believes that Shen is different from the product of the instant invention, then the applicant is invited to claim the product with sufficient specificity such that it doesn't read on porous material of Shen.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Thursday from 5:30 A.M. to 3:00 P.M. and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 1753
October 20, 2004



KAJ K. OLSEN
PRIMARY EXAMINER